RURAL DISTRICT OF NORTH WESTMORLAND

ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR

1953

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C. TINLING AND COMPANY, LIMITED, PRINTERS, 53, VICTORIA STREET

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To the Chairman and Members of the Rural District Council of North Westmorland.

SIR AND GENTLEMEN,

I have the honour to submit to you my Annual Report upon the health of the Rural District during the year 1953.

There are signs of better unity between the hospitals, general practice and the public health services. The upheaval of the National Health Service Act of 1946 drove deep schisms into the old established partnership. Good will and professional loyalties are gradually restoring a unity of purpose.

Undue emphasis still lies on disease and its treatment, but the ever mounting cost is a solemn reminder that prevention might be better. The cherished Garden of Eden now has the serpent of fiscal expediency.

In the field of preventive medicine the scope is unlimited for those who have the courage to look beyond their immediate surroundings. The service has a proud record in the past and an unquenchable faith in the future.

I wish to acknowledge the help and ready co-operation of my colleague, the County Medical Officer of Health, and also the assistance afforded to me by the local general medical practitioners.

I am indebted also to the Chief Sanitary Inspector and his staff for the spirit of team work which exists in my department, and for the fund of local knowledge which they have laid at my disposal.

I have the honour to be,
Sir and Gentlemen,
Your obedient servant,

FRANK T. MADGE,
Medical Officer of Health.

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT

Area of the Rural District in acres	288,688
Population (Registrar General's mid-year estimate) ...	16,500
Inhabited houses	5,085
Rateable Value	£71,826
Product of a Penny Rate	£286
Rate in the Pound levied in 1953-54	20s. 8d.
Of which the County Rate was	18s. 3d.

The Rural District of North Westmorland lies between the central mountainous mass of the Lake District and the escarpment of the Pennine Chain, and possesses a wide variety of scenery. The main geographical feature of the District is the Eden Valley, a fertile agricultural strip which was once the route of a Roman highway, and later a strong line of defence against the Border raiders. The River Eden rises in lonely Mallerstang, flows past the market town of Kirkby Stephen to the foot-hills of the Pennine Range, and thence north-westwards through the ancient Borough of Appleby to its junction with the River Eamont, where it leaves the District.

The country to the north-east rises abruptly to some 2,500 feet, and on the far side the northernmost boundary lies in the desolate area of the Upper Tees Valley. To the south-west of the Eden Valley lies the central upland plateau which extends from Shap to Kirkby Stephen, broken only by a few charming wooded valleys and occasional villages. South of this plateau the River Lune flows through pleasant pastoral Ravenstonedale into the austere gorge below Tebay, and the southern boundary of the District is the 2,000 feet high rampart of the great watershed of Westmorland. In the south-west the great barren fells of the Lake District rise to over 3,000 feet above sea-level, and in their valleys lie the beautiful lakes of Ullswater and Haweswater. These geographical features determine the natural lines of communication and therefore influence the spread of infectious diseases.

The geology of North Westmorland is also very varied. The escarpment of the Pennine Chain of the north and the central upland mass are formed of lower carboniferous limestone, and the Eden Valley lies between along the lines of the Pennine Fault. The Cross Fell inlier in the Dufton and Hilton area is a unique formation containing in miniature most of the Lake District rocks, Skiddaw slates, Borrowdale volcanic rocks, Coniston limestone, the Ashgillian series, and Silurian strata above which follows the dominating carboniferous series of the escarpment.

The Vale of Eden is composed mainly of permian sandstone, with St. Bees sandstone in the south, with small beds of red shales, gypsum

and magnesium limestone. Above and below the Penrith sandstone lie Brockrams and Breccias, and further west some red conglomerate basement beds are found in the Pooley Bridge area. To the south-west the Borrowdale Volcanic series occur, with ashes and breccias often well bedded and cleaved, and the Silurian strata commence south of Shap. A further interesting feature is the outcrop of the Shap granite intrusion through the Borrowdale series near their junction with the thin Coniston limestone beds. Glacial drift remains at several places and the valley bottoms contain alluvial deposits. These geological characteristics are of great significance in the supervision of water supplies, sewerage and occupational diseases as well as affecting the economics of the District.

The climate is equable in the valleys and invigorating on the fellsides and uplands. The air is generally very clear and there is little mist or fog. Temperature gradient inversions are occasional in the mornings. The average rainfall is 73 inches a year in the Haweswater area, and snow may be expected for one or two weeks in the late winter.

The District is primarily agricultural in character and many of the small local industries are ancilliary to agriculture. There are also the following industries which provide much local employment and bring a measure of prosperity to the villages :—

Stone Quarries.
Gypsum Mines.
Barytes Mines.
Cement Manufactory.
Plasterworks.

In addition to these local industries the District receives seasonal tourist business along the main highways and in the Lake District areas. The variety of these opportunities for local employment has helped to stop the drift from the countryside and has kept North Westmorland happily free from unemployment, and has provided the economic security and local prosperity which is a most important factor in the maintenance of the public health.

STAFF.

Name	Qualifications	Office	Whole or Part Time	Other Offices
Madge, F. T.	M.D., Ch.B., M.R.C.S., L.R.C.P., D.P.H.	Medical Officer of Health	Part	M.O.H. Combined County Districts of Westmorland
Calvert, D.	M.R.S.I., M.S.I.A.	Chief Sanitary Inspector	Part	Engineer and Surveyor
Hart, G.	M.R.S.I., M.S.I.A.	Additional Sanitary Inspector	Part	Surveyor
Shepherd, I.	A.R.San.I., M.S.I.A.	Additional Sanitary Inspector	Whole	—
Craddock, N.	—	Clerk and Technical Assistant	Whole	—
Bousfield, J.	—	Clerk	Whole	—
Holliday, M.	—	Clerk	Part	—
Machell, B. M.	—	Clerk to Medical Officer of Health	Part	Clerk to Medical Officer of Health Combined County Districts of Westmorland

STAFF CHANGES.

There were none during the year.

N W

COMMITTEES.

The Minister of Health requires me to include a list of your Council's committees which are concerned with matters of public health.

The Public Health Committee deal with most of the principal matters, but there are other aspects of public health importance which are dealt with by the Housing, Water and Licensing Committees.

VITAL STATISTICS.

The following extracts are made from information supplied by the Registrar-General with figures for 1952 for comparison :—

Area of the District in acres 288,688

			1952	1953
Estimated civilian population (mid year) ...			16,550	16,500
Live Births.	Legitimate—	males	127	116
		females	124	140
	Illegitimate—	males	6	3
		females	8	6
		Total	265	265
	Crude rate per 1,000 population...		16.6	16.06
	Corrected rate per 1,000 population		18.2	17.6
	Rate for England and Wales ...		15.3	15.5
Still Births.	Legitimate—	males	1	2
		females	7	3
	Illegitimate—	males	—	—
		females	—	3
		Total	8	8
	Rate per 1,000 total (live and still) births		29.3	29.3
	Rate per 1,000 population ...		0.48	0.48
	Rate for England and Wales ...		0.35	0.35
Deaths.	Males		102	100
	Females		95	91
	Total		197	191
	Crude rate per 1,000 population ...		11.9	11.5
	Corrected rate per 1,000 population ...		10.9	10.5
	Rate for England and Wales		11.3	11.4

	1952	1953
Infantile Deaths (under 1 year)		
Legitimate	6	6
Rate per 1,000 legitimate live births...	23.9	23.4
Illegitimate	—	1
Rate per 1,000 illegitimate live births	—	111
Total Deaths under 1 year	6	7
Rate per 1,000 live births	22.6	26.4
Rate, for England and Wales	27.6	26.8
Neonatal Deaths (under 1 month).		
Total Neonatal Deaths...	4	5
Rate per 1,000 live births	15.4	18.8
Deaths from Diarrhœa and Enteritis (under 2 years)		
Deaths	—	—
Rate per 1,000 live births	—	—
Rate for England and Wales	1.1	1.1
Maternal Mortality.		
Total Deaths	—	—
Rate per 1,000 total (live and still) births	—	—
Rate for England and Wales	0.72	0.76

Deaths from certain causes :—

	1952	1953
Cancer	23	27
Measles	Nil	Nil
Whooping Cough	Nil	Nil

The main causes of death were :—

Heart Disease	52
Vascular lesions of nervous system	35
Cancer	27

COMMENTARY ON VITAL STATISTICS

The Registrar-General's estimate of your civilian mid-year resident population was 16,500, but the preliminary figure for the 1951 Census was 16,962. It is fruitless to discuss the significance of these figures until the final census statistics are available.

A proper perspective cannot be obtained by considering merely one year's changes. It is the general trend of population which is important for the planning of your future housing, water and sewerage requirements, and for the broader issues of the economic prosperity of your District.

Before the second world war you were a declining community in spite of your births exceeding your deaths. There was a steady drift each year out of the countryside which defeated the effects of your natural increase.

I believe that the setting up of a better basis for agriculture in the national economy will check that drift from the countryside, and will encourage your young folk to renew their faith in country life by settling down in their native parts.

Birth Rate.

Your birth rate has generally been above the average for England and Wales, and is still well above your death rate. The position would be better but for the effect of the two wars. The present child-bearing and begetting population suffered twice. There is a sad gap in their ranks due to the unborn casualties of the first world war, and at the onset of the second war their marriages were delayed, prevented or frustrated at the time of their maximum fertility. The corrected rate for 1953 was 17·6, which is just above the national figure.

Stillbirth Rate.

Your stillbirth rate was satisfactory.

Death Rate.

Your corrected death rate was below that for England and Wales, but I attach no significance to that fact.

Infantile and Neonatal Deaths.

This year's rate was 26·4. Infantile deaths are deaths in children under the age of one year, and included in this figure are the neonatal deaths which are deaths in children under one month of age. This distinction helps to separate the deaths which are due to factors connected with

pregnancy, child-birth and abnormal development, which are more likely to cause death within the first month, from the factors connected with infant management which are more likely to cause death between one month and one year.

There were 7 infant deaths in 1953 and of these 5 were neonatal deaths. Your infantile death rate has been about the average for England and Wales during the past 10 years. Your figures are too scanty to carry any great statistical significance, but I feel that they reflect a very satisfactory improvement in child-care by the local doctors, nurses and above all, by the young mothers in their homes. I hope that this happy state will continue.

The neonatal deaths contain what we might call the hard core of " unavoidable " infant deaths. Many of these in the past have been due to prematurity, abnormality, or the result of difficult child-birth. It does not appear likely that science will be able to prevent developmental abnormalities, but there are high hopes that blood tests and the increased availability of obstetrical specialists will help to reduce the number of neonatal deaths.

Maternal Deaths.

There were happily no maternal deaths during the year.

PREVALENCE AND CONTROL OF INFECTIOUS AND OTHER DISEASES.

Public Health Act, 1936. *Sections* 143-170.
National Health Service Act, 1946. *Part III.*

The first quarter of the year was almost free from notifiable disease, and it was not until May that a few scattered cases of measles appeared in Kirkby Stephen, Orton and Tebay. There was nothing which could be dignified by the name of epidemic, although Brough had a short little outbreak of measles in July. Whooping Cough grumbled away during most of the summer in the villages surrounding Appleby, but everything quietened down into a fairly trouble free autumn. On the whole it was quite a good year, but I suppose a few patients escaped notification.

It is pleasing to record that the notification of infectious diseases has much improved in recent years, and I am very grateful to my colleagues in general practice for their prompt help in this respect. I look upon the control of notifiable diseases as one of the most important duties of our department. Patterns of thought change from time to time on these subjects, but this is how I see them at the end of 1953.

Whooping Cough.

Whooping Cough is being brought under control with depressing slowness. Artificial immunisation has been available for well over ten years and has been privately sought for their children by most of the intelligent parents in the country. The delay lies in its recommendation to that section of the community who have come to rely upon centrally inspired propaganda to direct their way of life.

The Medical Research Council cannot yet present a cast-iron case for the efficiency of whooping cough immunisation, and the Ministry of Health have done no more than offer a lead from behind in approving the proposals of some progressive local authorities to start it, and I understand that it is available on request at the County Council's clinics. In support of such an obvious precaution I cannot say more than that I immunised my own children.

Although the antibiotic drugs have reduced the complications, whooping cough remains a very lethal illness during the first few months of life, and a very distressing affliction at all ages. I believe that it could be virtually wiped out with a little more popular understanding and a lot more effort.

Measles.

Measles remains a disease which visits the area with periodical regularity. No effective artificial immunisation is yet available, but the use of antibiotic drugs has greatly reduced the incidence of pneumonia and ear disease complications in measles.

It is in the first year of life that measles is such a deadly disease, so every effort should be made to keep babies away from infection. At one time " measles tea-parties " were popular as a means of getting a family through the illness all at once, but it was hard on the younger members, and I would say that the longer you can put off having measles, the better will be the chances of complete recovery.

German Measles.

German measles is not notifiable so I do not know how many cases occurred, [redacted] Expectant mothers who contract german measles during the early part of pregnancy run an added risk of their children being born deaf, so it seems quite a good idea to get over this mild illness during school days, because the odds are that most people catch german measles some time in their lives.

Scarlet Fever.

Scarlet fever has been insignificant for many years and the illness is

now normally nursed at home. Its continuance as a separate entity can hardly be justified, for it is merely one manifestation among many of infection with the haemolytic streptococcus organisms. If you happen to be sensitive to the rash-producing side-line of the germ you get branded with the alarming label of scarlet fever, whereas if you are not sensitive you merely excite sympathy with a streptococcal sore throat. Perhaps that is over-simplifying the case, but it remains quite illogical.

Its virulence has diminished dramatically during the present century and we have been spared the havoc it caused in Victorian families. The antibiotic drugs now cut short its progress and prevent its complications. What a striking contrast even with pre-war days, when whole hospital blocks were allocated for scarlet fever cases ! Nowadays there is little more than neighbourly recrimination against the patient playing in the street. Let us hope that we are not being over confident about our conquest.

Diphtheria.

Diphtheria has not occurred since 1947. Artificial immunisation appears to have almost abolished diphtheria, and I hope that serious epidemics of this deadly disease have been banished for all time.

I wish to thank the local doctors and nurses for their efforts to secure artificial immunisation of every baby before the first birthday, and the school medical officers for their part.

Just think that before the war we used to keep an infectious diseases hospital in this County almost exclusively for diphtheria and scarlet fever. Now those buildings are put to better use. But it is no use patting ourselves on the back and relaxing into complacency. We must continue to press on with the immunisation of our children or the bogey man of diphtheria will soon poke his head round the nursery door.

Dysentery.

Notifications of the Sonne type of bacillary dysentery have increased in recent years. This is probably because extended laboratory services have facilitated more accurate diagnosis of the group of diseases which are characterised by diarrhoea and a more precise label now replaces those polite chills on the liver and the more colourful service descriptions of the periodical upsets which from time immemorial have swept through home and village and town.

It is no particular credit to note that Sonne dysentery has been prevalent in the North of England for several years, so we probably harbour a number of symptomless excretors of the germs. The cure lies somewhere between the toilet and the table—it lies in your own hands.

Food Poisoning.

What I said about dysentery applies also to food poisoning, but it goes a lot further. Nose picking, nail biting and thumb sucking may be comforting outlets for emotional tension, but they are outlets also for putting poisonous germs into food. Likewise, boils and septic cuts and impetigo are all best kept separate from those foods which invite the germs to multiply in their warm, moist nourishment. We have not had to look far to see what happens when that occurs. There is far more to the problem than just eating a peck of dirt before you die, and the lessons of food hygiene apply as much to the housewife as they do to the shopkeeper.

Smallpox.

I believe that we are sitting on a volcano. Unless we smarten up our ideas about smallpox the generation of Second Elizabethans may risk looking nearly as pock-marked as the First. Even our Asiatic contemporaries bear pitted testimony to the fact that it needs more than faith to ward off smallpox, and it is from such Eastern bazaars that the virus can come with the returning traveller and his gewgaw gifts in the space of mere hours. The enthusiasm for airborne travel is matched only by the apathy towards vaccination of those who only England know. The soil is ready for the seed and what a dreadful harvest will be reaped someday.

Smallpox swept this countryside from time to time until some 50 years ago when widespread vaccination checked its progress and vigilance at the seaports prevented its importation. A generation has grown up which is blinded by the complacency of false security, not yet realising that air travel has made smallpox once more a very real risk to the community.

Persons from abroad, who may be incubating the disease, arrive in this country well within the incubation period. It is most important that all children should be vaccinated in infancy, and that adults should keep themselves protected, rather than rush in belated panic for mass vaccination when an outbreak occurs.

The present low vaccination state of the population is inviting trouble from this disfiguring and often fatal disease. I cannot stress too strongly the wisdom of taking obvious precautions against preventable diseases.

Hospital and Ambulance Arrangements for Infectious Diseases.

National Health Service Act, 1946. *Parts II and III.*

Hospital accommodation for infectious diseases is provided by the Regional Hospital Board, Newcastle, at Penrith and Carlisle.

Smallpox cases will be admitted to the Town Moor Hospital, Newcastle.

NOTIFIABLE DISEASES TABLE.

Disease.	Total	Ages.												Admitted to Hospital	Deaths
		-1	1-	2-	3-	4-	5-	10-	15-	20-	35-	45-	65-		
Scarlet Fever	6	—	—	1	—	2	2	1	—	—	—	—	—	1	—
Pneumonia	14	—	—	1	1	—	1	—	1	1	—	4	5	1	1
Acute Poliomyelitis (Paralytic)	1	—	—	—	—	—	—	—	—	1	—	—	—	1	—
Meningococcal Infection	1	—	—	—	—	—	1	—	—	—	—	—	—	1	—
Puerperal Pyrexia ...	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Measles	75	1	5	6	6	6	39	6	—	4	2	—	—	—	—
Whooping Cough ...	57	—	3	7	3	8	29	3	1	1	—	2	—	—	—
Food Poisoning ...	4	—	—	—	—	1	—	—	—	—	1	1	1	1	—
Total	159	1	8	15	10	17	72	10	2	8	3	7	6	5	1

Ambulance transport for cases of infectious disease is provided by the Westmorland County Council.

Disinfection Arrangements.

On account of the geographic difficulties it is not usually practicable to effect steam disinfection, and reliance has to be placed upon formaldehyde treatment in the house of the patient.

TUBERCULOSIS.

Tuberculosis is the most important communicable disease of our time. Its prevention is primarily dependent upon social and economic factors in the general community, and secondarily upon the management of the established case. Your Council's functions are three-fold : to investigate the source of infection, to prevent the spread of infection, and to remove conditions favourable to infection.

Investigation of the source of infection relies upon notification. Inquiries are made into the home and working conditions of the patient and into any outside possible sources of infection.

Additional assistance is provided by the Mass Miniature Radiography Units of the Regional Hospital Boards, which offer free X-ray examination in each locality from time to time, and not only reveal the infectious cases but enable early cases to be offered the best possible chances of recovery.

The Newcastle Regional Hospital Board's Unit made a return visit to the area during 1953 and X-rayed 1,636 volunteers, about 500 less than in the previous year ; the team discovered two more active cases and 35 inactive cases. Those volunteers represent only a small percentage of your total population and I appeal most earnestly to the public to visit the unit next time it comes.

Preventing the spread of infection depends mainly upon the management of the established case. Ideally, the infectious patient should be isolated, but the serious shortage of beds and nurses in sanatoria causes many cases to remain outside. This is usually to the detriment of the patient and it creates a very serious reservoir of infection leaking into the general population.

If isolation in hospital is denied, reliance has to be placed on education of the patient in personal precautions, and your Council endeavour to ensure that the home conditions are such that an infectious patient is not compelled to share a bedroom with other members of the family who are still healthy, and where possible to rehouse young families who are sharing a house with infectious tuberculosis patients—rather an inadequate and pathetic makeshift.

Prevention of tuberculosis extends beyond the home. Your Council have the duty of ensuring that an infectious patient is not employed in

dairying or food handling, and persuasion is occasionally needed to avoid the undesirability of such a patient carrying on certain other employment which would create an especial risk to susceptible contacts. In many other workplaces control is impotent and spread may be unchecked. Perhaps immunisation with B.C.G. vaccine may protect susceptibles.

Removing conditions favourable to infection embraces the whole range of environmental preventive medicine. Housing and nutrition are probably the major factors. Slum clearance, reconditioning of houses, relief of overcrowding are the first steps, for tuberculosis thrives in damp, dark, congested dwellings, whether they may be sited in an urban slum or rural solitude. Nutrition is undoubtedly significant in the prevention of infection and in the early arrest of tuberculosis. Protective foods are expensive to buy, medical treatment is free.

The increase in attested herds, the eradication of tuberculous cattle, and systematic meat inspection are making notable progress in removing conditions favourable for bovine infection to be transmitted to man.

The supervision of dusty trades under the Factories Act reduces the risk of lung damage which may predispose to tuberculous infection, and the workers in these occupations are especially surveyed by the X-ray units.

Your Council have therefore very considerable responsibilities in accepting the challenge of tuberculosis.

TUBERCULOSIS TABLE.

Age Periods	New Cases				Deaths			
	Respiratory		Non-Respiratory		Respiratory		Non-Respiratory	
	M.	F.	M.	F.	M.	F.	M.	F.
0	—	—	—	—	—	—	—	—
1	—	—	—	1	—	—	—	—
5	—	—	1	—	—	—	—	—
15	—	2	—	2	—	—	—	—
25	1	1	—	2	—	—	—	—
35	1	—	—	1	—	—	—	—
45	—	1	—	—	—	—	—	—
55	—	1	—	—	—	—	—	—
65	—	—	—	—	—	—	—	—
Total	2	5	1	6	—	—	—	—

Two of these cases were discovered by the mass miniature radiography survey, and one respiratory and one non-respiratory were transfers from other areas.

The number of tuberculous patients on the register at the year end were :—

Respiratory	41
Non-Respiratory	31
Total	72

HOUSING.

The Housing Acts, 1936 *and* 1949.

Under the Housing Acts your Council has a duty to consider the general housing conditions in your district, to ascertain whether any are unfit for human habitation, and to assess the need for further houses. You have powers to deal with unfit houses, powers to provide new houses for all classes, and various powers and duties in the management of your Council's housing estates. Good housing conditions are an integral part of public health.

Present Housing Position.

Housing Act, 1936, *Section* 57.

There were 5,085 inhabited houses on your Rate Books at the end of the year. With an estimated population of 16,500 the average number of persons per house is 3·2, which is not a high figure. It is estimated that approximately 19 houses are legally overcrowded within the strict definition of the Housing Act which assumes that living rooms are used also for sleeping purposes, and that the sexes can be segregated irrespective of age, health and family relationships. Assessment of overcrowding based on a minimum bedroom standard is long overdue and would provide a more realistic picture of the domestic difficulties which are reflected in the application lists for new houses.

The great majority of cottage houses and farm houses are of considerable age and are stone built. Many of these old houses suffer from rising dampness due to the absence of damp-proof courses which cannot be remedied without extensive works in under-pinning. The sound methods of the original construction have ensured that deterioration of the structure is a slow process, but heavy repair costs and low rentals have made housing repairs unprofitable.

The pressing demand upon local building labour for the erection of new Council houses and new agricultural buildings is one of the chief causes for slow progress in the repair and improvement of existing dwelling-houses, many of which have been badly neglected.

The worst cases are being dealt with first and where informal action has failed to produce the desired result this has been followed up by Statutory action usually under the public Health Act.

Forty-eight dwelling-houses have been renovated or improved during the year by the installation of baths and modern sanitation and improved cooking facilities, etc., including the conversion of 46 privies or earth closets into water closets.

General Progress of Slum Clearance and Improvements.

Westmorland as a whole has made very encouraging progress in post-war slum clearance despite all the difficulties of the times. Since the campaign was resumed in 1948 well over 300 houses in the County have been dealt with by formal action under the Housing Acts. Most of these will eventually be demolished or converted to trade use, but about 15 per cent of them have been reprieved by their owners undertaking to spend considerable money for comprehensive reconditioning up to modern standards. In addition to those formal actions there have been a very creditable number of informal schemes for the renovation of substandard houses, either with the aid of improvement grants or entirely by private enterprise. The aim is to save a house wherever possible, but if it cannot be brought up to an acceptable standard of safety, decency and amenity the soomer it is swept away the better.

In your own District good progress continued with slum clearance and was limited to dealing with any Class 5 houses becoming vacant. Every endeavour was made to persuade owners to recondition them if there seemed any possibility of retaining them as dwellings.

Closing Orders.

Housing Act, 1936. *Section* 12.
Local Government Act 1953. *Section* 10.

Five closing orders were made during the year and one was outstanding at the year end.

Undertakings not to use for human habitation.

Housing Act, 1936. *Section* 11.

Two such undertakings were accepted during the year.

Undertakings to perform works.

Housing Act, 1936. *Section* 11.

One such undertaking was accepted during the year.

Demolition Orders.

Housing Act, 1936. *Section* 11.

One demolition order was made during the year.

One 1949 demolition order on a house in Pump Square, Brough was carried out.

There are no outstanding clearance areas although many blocks of property are over-ripe for such action.

Estimated Requirements for New Houses.

Housing Act, 1936. *Section* 71.

It is difficult to estimate the new housing need until the 1951 census figures are available or application lists are compiled, but 520 is considered to be a likely figure. The difficulties of labour in the farmhouses are hardening farmers' wives against workers living in, and the shortage of cottages discourages married men. The policy of siting farmworkers' houses in existing villages may be satisfactory in arable farming areas, but it leads to working difficulties on stock-rearing farms where it is desirable for the men to be near their work.

Your Council's Housing Schemes and Progress.

The position at the end of the year relating to houses constructed or in course of construction and sites developed or in course of development since the end of the 1939-45 war was :—

Completed	157
Under construction	20

During the year 20 out of the above 157 were completed.

There were also six temporary houses converted from ex-War Department hutments.

Houses Built by Private Enterprise.

Since the war 43 houses have been completed, 9 of which were completed during 1953 and 11 were under construction at the end of the year.

Five buildings not previously used for human habitation were converted into dwelling houses during 1953, and six were under conversion at the end of the year.

Tenants Selection.

When Council houses become available, handbills are posted on village notice boards, inviting applicants and stating whether the house is reserved for agricultural workers. All applicants are supplied with a form for submitting details of their personal circumstances, domestic and financial, to your Council. The applications are considered by your Housing Committee together with any other information which can be supplied by the members of your Council for that area. There is no anonymity and your Housing Committee attach importance to the personal knowledge of your Councillors in making their selection. This system has its advantages as well as its disadvantages.

No application list of persons desiring housing is maintained by your Council. The maintenance of a live register reviewed annually would be valuable in assessing the demand in each parish, and in recording the length of time which each applicant has been waiting. In view of your large demand for houses and your present rate of progress it would enable you to keep the public informed of the position from time to time.

Housing Management.

Your Council now own 342 occupied houses, situated in widely dispersed sites in your extensive District. The housing management is largely in the hands of the Sanitary Inspectorate, and every effort is made to inspect the houses at regular intervals to see that the property is kept in good condition.

The rents of your Council houses vary from 4s. 6d. to 15s. 9d., exclusive of rates, and the rateable values are between £7 and £18. The examination of rentals and rates may not seem at first sight to have much to do with public health, but it does have considerable significance. It is not unknown for persons who have been rehoused from poor quarters into modern Council houses to have to pay their rent and rates from that portion of their income which rightly belongs to the purchase of food. Domestic economy can affect the general standard of the public health almost as much as environmental conditions, and some attempt must be made to maintain a balance between these conflicting factors.

Verminous Houses.

Public Health Act, 1936. *Sections* 83-85.

No cases were reported during the year.

Nuisances and Notices re Dwellings.

Public Health Act, 1936. *Sections* 91-100.

During 1953 there were 25 Informal Notices served under the Act, and one Statutory Notice was served.

Dangerous Buildings.

Public Health Act 1936, *Section* 58.

No action was necessary.

Tents, Vans, Sheds and Movable Dwellings.

Public Health Act, 1936. *Sections* 268-269.

There are five licensed camping sites in the Rural District at Howtown, Barton, Clifton and Eamont Bridge. Fourteen individual camping licences were in force during the year.

Unlicensed camping sites are limited to occasional use and are mainly on the Ullswater Shore or along the banks of the River Eden during the fishing season. These casual campers cause little nuisance by their improvised sanitary arrangements and refuse disposal but they take water from polluted becks at their own risk.

A more serious nuisance occurs during the June Fair near Appleby and the Brough Fair later in the year. Both these Fairs are held under ancient charters and were once two of the most important horse fairs in England. Horse-drawn caravans, motor trailers, and tents assemble in hundreds along the roadside, and the occupants use the fields and hedgerows for all sanitary purposes, leaving after their departure a foul and polluted area.

Steps are being taken in Appleby Borough to concentrate the June Fair on to Gallows Hill and to install a proper water supply and chemical closets. This action should be advantageous to your Rural District as much of the nuisance occurs therein. I recommend that your Council should consider similar action for the Brough Fair. The ancient charter privileges could be preserved without the unjustifiable and indiscriminate pollution of the District which at present constitutes a danger to the health of both the gypsies and the residents.

WATER SUPPLIES.

The water supply to your District is derived from many sources. The principal source of public supply is that from your regional scheme at Blea Water, the mains from which extend into 25 of your 52 parishes.

Your Council control and maintain 19 other sources of supply in whole or part of 32 parishes. A portion of your District is dependent upon individual private supplies from wells, springs, or watercourses. Martindale has no public water supply. Many houses in Hartley, Ravenstonedale, and Stainmore are supplied from the private systems installed in these three areas.

The quality of the public supplies is indifferent, as will be seen from the results of laboratory examinations and chemical analyses carried out, which are set out in Appendix " A." I have no official knowledge of the quality of the myriad of private supplies, but I suspect that many of them are unsatisfactory in quality and very variable in quantity. I can do no more than warn the users that they drink it at their own risk, that they should have it tested for purity at regular intervals, and if in doubt they should boil it.

Following further consideration of the Cumberland and Westmorland Water Survey Report issued by the Ministry, the Council regard the summary as a most informative document which will be of great value for future reference. The Council do not, however, agree with many of the suggestions contained in the report and more especially on the following points :—

The suggested amalgamation of the North Westmorland Rural District, Penrith Rural District, Alston Rural District, Penrith Urban District and part of Lakes Urban District and Appleby Borough to form one water area is not favoured. The Council consider that the North Westmorland Rural District is of sufficient size and its public water supply system sufficiently developed to justify its continued existence as a separate water authority.

The proposed use of Swindale Beck near Brough as the supply for a large part of the area, is not favoured as this beck is regarded as an unreliable source both with regard to the quantity and quality of the water. The suggested piping of water from a source in the Penrith Rural District to serve the North-eastern part of the North Westmorland area is regarded as unnecessary, there being equally good sources available within the area much nearer.

The suggested method of supplying water to the district does not take full advantage of the privileges which the Council hold for obtaining up to 1,000,000 gallons of water per day from the Hawes-water area to be supplied by Manchester Corporation.

The Council have forwarded to the Ministry their alternative proposals in broad outline and which anticipate the requirements of the district in 1970.

These proposals provide for obtaining approximately 990,000 gallons of water per day from Manchester Corporation and distribution by extension and enlargement of the present Regional System so as to supply 30 parishes. It is suggested that a second Regional System be provided to supply approximately 19 parishes. Water for this second Regional System to be obtained from Milburn and Swindale Becks situated on the Pennines at the north-eastern part of the district.

These schemes would provide for the whole of the district with the exception of parts of the parishes of Martindale, Stainmore and Mallerstang which it is considered can be otherwise satisfactorily supplied.

The following is a brief review of the various sources of your Council's public water supplies :—

Regional Schemes.

The source of supply is from Blea Water, which is a small tarn at 1,584 feet O.D. lying in the fells to the west of Haweswater in the catchment area owned by Manchester Corporation. The water is supplied by the owners in bulk to a small reservoir at Harper Hill, whence it falls to your Council's filter house a short distance below in Swindale.

At the filter house alumina and chalk are added to the raw water before it is filtered through Bell's pressure filters. Lime is further added to raise the *p*H, and the water is chlorinated occasionally.

The distribution mains then extend into 25 parishes with associated service reservoirs and balancing tanks. Since the time the regional scheme was installed there has been a constant increase in the number of consumers connecting to the system, and in the volume of milk production in the area. This heavily increased trade demand not only exceeds the domestic consumption, but causes difficulties in being concentrated at the two peak periods of milk cooling for a couple of hours each morning and evening.

Owing to the limitation of the borrowing powers in force at the time of the inception of the scheme, the mains and service reservoirs were reduced in size to the extent that now your District feels the effect of false economy. To relieve shortage in the high lying villages, improvements to the scheme, by the construction of new covered reservoirs at various points, have been made in recent years. The quality generally is fairly good. About 300,000 gallons per day pass through the filter house.

As this figure appears to be very near the total flow from Lake Blea Water, the Council have warned Manchester Corporation that arrangements should be put in hand for the purpose of augmenting the flow into Harper Hill Reservoir either by pumping from Lake Haweswater or otherwise.

Barton Supply.

This source of supply is from springs on Barton Fell which are screened before the water enters the storage reservoir. The parishes supplied are Barton, Sockbridge, Tirril, Yanwath, and Eamont Bridge. The quality is fair. An auxiliary supply from another spring was installed during 1949 to overcome shortage in the Cellaron area during the severe drought.

Orton Supply.

Supply is upland surface water from Churn Ghyll on Langdale Fell. The water is screened and distributed in the Parish of Orton, with the hamlets of Kelleth, Raisbeck and Greenholme. There is ample water at the headworks, but the number of consumers served from the three-inch main before it reaches the balancing reservoir east of Orton village causes very little margin to be left for extra demands or leakages, and the higher points on the system quickly suffer from shortage. The quality is fair.

A byepass main has been laid at a point below the Knott reservoir in order to make possible the stimulation of the supply to Orton and Greenholme during periods of heavy demand.

Improvements have also been made at the intake at Churn Gill.

Tebay Supply.

The source is the same as that for Orton, and the parish of Tebay with Langdale and Gaisgill are supplied with the water after screening. The quality is fair.

Shap Supply.

Supply is obtained from upland surface sources at Force Beck. The water is passed through a gravitating slow filter of very doubtful efficiency, and the bacteriological results are very poor on account of animal manurial contamination upstream. During 1949 a portion of the stream was fenced off to minimise pollution by stock and poultry, and the gravel filter was renewed. I do not anticipate that this source could ever be made satisfactory at reasonable cost and Shap needs the Regional Supply.

Wickersgill Supply.

This is a small scheme supplying the houses near the Shap Granite Works. This source is upland surface water from a moorland beck and springs in a disused quarry. There is a small reservoir and a sand filter. The bacteriological results are indifferent.

Kirkby Stephen Supply.

The source is from springs at Cold Keld in Kaber parish. There are

settling tanks and screens and the water is chlorinated before distribution at Kirkby Stephen, Winton and part of Hartley. The water is subject to periodical discolouration after wet weather. The quality of the treated water is satisfactory, but filtration is much needed. Shortages have occurred periodically in the higher parts of the town when there was exceptional demand in the lower areas. This supply is long overdue for drastic renovations.

Kaber Supply.

This supply comes from a spring on the fells near Rookby in the parish of Kaber. There are settling tanks and screens. The quality of the water is variable.

Brough Supply.

The source of this supply is from springs at Thornthwaite in Hillbeck parish, and the distribution is to Hillbeck, Brough and Brough Sowerby and part of Stainmore. There are settling tanks and screens. The quality is liable to be poor bacteriologically. A scheme for the improvement of this supply by the addition of another spring was completed in 1953.

Bleatarn Supply.

The Bleatarn area of Warcop parish is supplied from a spring near Bleatarn village. There are settling tanks and screens. The quality of the water is indifferent bacteriologically. During 1950 your Council acquired the water rights and purchased land to obtain better control against contamination and the area has been fenced.

Warcop Supply.

A spring near Habergill furnishes the supply to the parish of Warcop except the Bleatarn area. There are settling tanks and screens. The quality of the supply is fair.

Hilton Supply.

A spring on the fells near Scordale supplies the Hilton areas of Murton parish. There are settling tanks and screens. The quality of the water is indifferent.

Murton Supply.

This source is from a spring on the fells near Murton. There are settling tanks and screens. The bacteriological quality of the water is poor. Mains replacement was carried out during 1953.

Dufton Supply.

The water comes from a spring near Keisley. There are settling tanks and screens. The water is of fair quality.

Longmarton Supply.

This is a mixed supply from two sources, one spring at Dufton Pike and one spring at Close Houses. There are screens and settling tanks. The parishes of Longmarton and Crackenthorpe are supplied. The quality of the water is fair. Shortage is experienced in the drought, and the supply has to be augmented from Great Rundal Beck.

Kirkby Thore Supply.

Springs in Marble Scar in the parish of Milburn form the source of the supply to Kirkby Thore and Milburn. There are settling tanks and screens. The quality of the water is fair. The supply has to be augmented from a private source at Howgill Castle Farm during the drought.

Ormside Supply.

The source is a spring at Heights and supplies the parish of Ormside. There are settling tanks and screens. The quality of the water is indifferent bacteriologically.

Trouble is experienced in dry times and during the shortages in 1951 a temporary pipe-line was connected to the Regional system.

Temple Sowerby Supply.

The supply comes from a spring at Newbiggin Mill near Milburn. The source is bad as it is liable to flooding with polluted beck water. Your Council's septic tanks from Milburn village drains into this beck and there is a danger that the public water supply may be contaminated with sewage. I recommend that this water supply should be chemically sterilised.

Newbiggin-on-Lune Supply.

Upland surface water from a beck at Swarth Ghyll forms the supply to the Newbiggin area of the parish of Ravenstonedale. There are settling tanks and screens. The quality of the water is fair.

Outhgill and Shoregill Supply.

The scheme was installed in 1951. A spring at Well Gill forms the source of a piped supply to both hamlets and works well. The quality is expected to be similar to other systems of this type, but I cannot comment on this until a series of samples have been taken under differing weather conditions.

General Quality.

The poor and indifferent bacteriological results are in the main due to

the upland gathering grounds being grazed by stock with the consequent manurial contamination of the water after rainfall. The bacterial counts fluctuate widely according to climatic conditions, and as most of your public waters are untreated the contamination tends to be a nuisance in laboratory control rather than any particular danger to the consumer. Certain sources, however, require close investigation and supervision against human pollution.

The Minister of Health requires me to state the number of houses and population in each of your 52 parishes with water laid on and with water available from standpipes.

Proposed Future Water Schemes.

Regional Improvement Scheme.

Since terms are agreed for the acquisition of more water from Mardale it will be possible to extend the regional supply to further areas in the eastern part of your district.

Your consulting engineers have recommended extension of the filters, the laying of mains from Swindale through Shap, Orton and Newbiggin-on-Lune to Kirkby Stephen to form a comprehensive scheme for the southern portion of your District.

A later development envisages the laying of another main from Shap through Appleby and Brough to form with the southern branch a complete ring main which would serve almost the whole of your area. It seems unlikely that the Scheme will go forward for some time on account of the present economic difficulties.

The Minister of Housing and Local Government made a survey of your water supplies during 1951 and his inspector's report published in 1952 recommended a combination of the local authorities in North Westmorland and the Penrith areas of Cumberland, but the suggestion met with almost universal disapproval up here.

The progress with other schemes has been as follows :—

Kirkby Stephen.

Improvements are planned to improve the Kirkby Stephen supply by the much needed addition of settling tanks and filters to make this turbid water more presentable for the inhabitants and many visitors.

Coupland Beck.

Plans to supply the hamlet of Coupland Beck from the supply for Appleby Borough were approved in principle by the Minister of Housing and Local Government but delivery of the materials is not expected until 1954.

PUBLIC WATER DISTRIBUTION.

Parish	No. of Houses in Parish	No. of Houses with Water laid on	No. of Houses supplied from Stand Taps	No. of Houses otherwise supplied
Asby	103	88	—	15
Askham	118	118	—	—
Bampton	125	104	—	21
Barton	78	59	—	19
Bolton	87	83	1	3
Brough	223	210	4	9
Brough Sowerby	30	26	—	4
Brougham	77	66	1	10
Cliburn...	57	57	—	—
Clifton	97	95	—	2
Colby	28	28	—	—
Crackenthorpe...	29	28	—	1
Crosby Garrett	52	48	—	4
Crosby Ravensworth ...	175	159	—	16
Dufton	87	67	—	20
Hartley	46	38	5	3
Hillbeck	9	9	—	—
Hoff	59	58	—	1
Kaber	36	31	—	5
Kings Meaburn	40	40	—	—
Kirkby Stephen	542	537	4	1
Kirkby Thore	158	157	—	1
Long Marton	205	201	—	4
Lowther	116	103	—	13
Mallerstang	53	5	—	48
Martindale	43	—	—	43
Milburn	57	49	—	8
Morland	86	82	—	4
Murton	105	85	8	12
Musgrave	50	46	—	4
Nateby	40	37	3	—
Newbiggin	36	35	—	1
Newby	49	49	—	—
Ormside	38	28	—	10
Orton	222	167	—	55
Ravenstonedale	220	68*	12	140
Shap	380	338	1	41
Shap Rural	63	36	—	27
Sleagill	29	29	—	—
Sockbridge & Tirril	76	76	—	—
Soulby	57	54	—	3
Stainmore	110	—	—	110
Great Strickland	64	58	—	6
Little Strickland	22	20	—	2
Tebay	280	247	—	33
Temple Sowerby	110	107	2	1
Thrimby	13	10	—	3
Waitby...	19	16	—	3
Warcop	133	121	—	12
Wharton	10	9	—	1
Winton...	65	61	2	2
Yanwath & Eamont Bridge...	78	76	—	2
TOTALS ...	5,085	4,319	43	723

* This does not include the houses supplied from the Ravenstonedale Private Supply.

SEWERAGE.

General Position.

Public Health Act, 1936. *Section* 14.

There is need for improved sewerage in your District. Your progress in the extension of the public water supplies has outstripped the disposal arrangements. Most of the villages are provided with some system of piped or culverted sewers, which may have served well in the past but which are now inadequate for present needs, and in many cases the installation of modern water closets is delayed by sewerage difficulties. Apart from Orton, which was equipped in 1940 with a full treatment plant, most of your District requires drastic overhauling and reprovision.

My report for 1947 tabulated the 28 sewage disposal works in your District. Many of these works are in poor structural condition and their efficiency is impaired by overloading or decay.

Prevalence of Water Closets.

The prevalence of water closets is largely governed by the availability of adequate water and sewerage. As most of your District is well watered the main deterrent is sewerage, although there has been an increased tendency recently to install septic tanks. It is estimated that less than 25 per cent of the houses outside the larger villages are provided with water closets.

Conversion to Water Closets.

Public Health Act, 1936. *Section* 47.

There were 45 conversions to water closets during the year. Your Council have made no contributions under this Act.

Public Conveniences.

Public Health Act, 1936. *Section* 87.

Your Council provided public conveniences at Kirkby Stephen, Brough and Shap. The accommodation is generally sufficient for local requirements but it is inadequate to deal with the seasonal motor coach traffic.

These coaches present a special difficulty in Kirkby Stephen which is used as a halting point for a very large number of Tyneside-Blackpool vehicles, and the shortage is accentuated by their arrival within a short period of time. Fouling of streets, doorways and yards results.

At Pooley Bridge a similar difficulty arises to a slightly lesser extent when coach parties arrive and the Ullswater Lake Steamers disembark. Public conveniences are inadequate at both ends of the lake and indiscriminate fouling is inevitable. Your Council considered a site at Pooley Bridge but deferred the matter for a year on account of the cost.

New public conveniences at Tebay were completed during the year.

Proposed Schemes for Sewerage.

Your Council fully appreciate the magnitude of the task in raising the standard of sewerage to that of their water supplies, and they have planned to carry out the following works when the current restrictions of capital expenditure have been removed. The programme is so extensive that it will probably have to be carried out in stages :—

Brough.

The scheme for new disposal works and extension of sewers was approved by the Minister of Health in general principle, but permission to start was limited to that portion of the scheme which superseded the bad outfall at Waggon House, and which allowed further development of your Council's housing estate. The work was completed in 1952 but full efficiency cannot be obtained until the designed flow is reached by joining up the outstanding sections of the scheme. Meanwhile the unsatisfactory conditions at Coltsford and Church Brough cannot be remedied. Permission to complete the scheme is sorely needed.

Kirkby Stephen.

The reconstruction and enlargement of the disposal works were completed in 1952 and are working satisfactorily. I would like to see Hartley village added in the near future.

Tebay.

Work in connection with the laying of sewers and construction of sewage disposal works has continued throughout the whole of the year. Many difficulties have been encountered including extensive areas of rock in the deep sewer trenches and water-logged ground at Old Tebay. It is hoped that the scheme will be completed early in 1954. The Sewage Disposal Works were substantially completed at the end of the year.

Shap.

During 1951 the Minister of Housing and Local Government held an Inquiry into your Council's scheme and approved it in principle, agreeing to permit the Council to carry out the work in three stages :—

(1) Construction of the sewage disposal works at the north end.

(2) Relaying of the village sewers.

(3) Construction of pumping plant for the south end.

The Council have let tenders for the first stage and work commenced in 1953. A substantial portion of that work had been completed by the end of the year.

Hackthorpe.

Duplicate settling tanks, a storm water overflow, and sludge drying beds have been constructed at the outfall of the joint sewers from Hackthorpe and Lowther villages. Previously the sewage was untreated.

A very welcome improvement was carried out in 1952 at Askham, where the open sewer was piped in pending the installation of a disposal plant at some future date.

Other improvements which are in abeyance include the following :—

Village.	Nature of Works.
Temple Sowerby ...	... Construction of some new sewers and complete disposal works.
Asby	... Complete new sewerage system and disposal works.
Hartley	... Complete new sewerage system connected to Kirkby Stephen outfall sewer.
Soulby	... Complete new sewerage system and disposal works.
Ravenstonedale ...	... Complete new sewerage system and disposal works.
Tirril and Sockbridge	... New sewers and disposal works.
Clifton	... New sewers and disposal works.
Crosby Ravensworth and Maulds Meaburn	... New sewers and disposal works.
Great Strickland ...	... New sewers and disposal works.
Bolton	... New sewers and disposal works.
Askham	... New sewers and disposal works.
Little Strickland ...	... New sewers and disposal works.
Morland	... New sewers and disposal works.

Your Council have decided to give priority to Temple Sowerby and Sockbridge, and plans are being considered by the Ministry.

General Maintenance.

On account of difficulty in obtaining casual labour many of the settling tanks and small disposal plants in the villages do not receive sufficient attention to maintain them in proper order. A permanent mobile squad of men is needed to visit each works on a regular programme.

PUBLIC CLEANSING.

Areas of Refuse Collection.

Public Health Act, 1936. *Section* 72.

There are only two parishes in which your Council do not collect

house refuse. These parishes at Wharton and Martindale do not contain villages of sufficient size.

In the remainder of your District the house refuse is collected by the employees of your Council. The collection area is limited to the villages, hamlets and houses which can reasonably be reached by the refuse vehicle on an organised round.

The frequency of collection in the less populous areas is monthly, but in Pooley Bridge, Tirril, Sockbridge, Yanwath and Eamont Bridge in the Western Division, and in most of the Eastern Division a fortnightly service is maintained. Weekly collections are limited to Shap, Tebay, Kirkby Stephen and Brough.

The emptying of privy middens in Tebay and Shap is a serious difficulty and continuance of this service is in jeopardy. The owners of all such houses in both villages have been circularised by your Council to request them to convert their privies to water closets and to provide bins instead of ashpits.

Refuse Disposal.

Public Health Act, 1936. *Section* 76.

Controlled tipping is the aim of your Council but it is difficult to obtain sufficient covering material and labour to keep the tips in proper condition.

In the Eastern Division disused quarry sites at Stamp Hill, Kirkby Thore, and at Gallensay Road, Soulby, are utilised. Brough refuse is now tipped on to a site on the Musgrave Road.

In the Western Division the chief tips are at a site a mile north of Shap, at Chapel Wastes near Tebay, Great Strickland and Clifton Dykes.

Salvage of Waste Materials.

Salvage Recovery Order, 1940.

The salvage of waste materials was carried out during the 1939-45 war, but on account of the withdrawal of voluntary labour and the scattered nature of the District your Council had reluctantly to discontinue the practice.

Street Cleaning.

Public Health Act, 1936. *Section* 77.

Street cleansing is carried out by the Westmorland County Council in the larger villages, and these are usually maintained in good order.

Pest Control.

A certain amount of work has been carried out by the part time Rodent Officer including the treatment for the destruction of rats on all the Council's refuse tips and sewage works. Six private properties have also been treated and the costs recovered from the persons responsible.

FOOD AND DRUGS.

General Powers.

Food and Drugs Act, 1938.

Your Council bear most of the statutory responsibility for safeguarding the public from foodborne diseases. The main aim is directed towards securing proper and hygienic conditions for the manufacture, preparation and sale of food. The secondary aim is to trace and localise any outbreaks of disease which may occur in spite of preventive measures.

Precautions against Contamination.

Food and Drugs Act, 1938. *Section* 12.

Recent years have shown steady improvement in the standard of cleanliness practised by food traders and caterers. A high level has been reached by the majority, but there are still a few who lag badly behind their colleagues. Education and co-operation are preferable to prosecution, and I am confident that this co-operation will continue, because most traders are eager to keep their premises and staff up to scratch in the interests of enterprise and competition. The customer has now been taught to demand clean conditions, and public opinion is constantly proving to be a very powerful ally in our campaign for safer food, safer premises and safer foodhandlers.

Very few food traders or caterers have taken up my challenge for them to invite their customers to look behind the scenes. It is done with pride by the shipping companies on most of the sea-going liners and I hope that we are not ashamed to do the same on land. It would have magnificent advertisement value, and the public would be left to draw their own conclusions about the others. A clean kitchen and clean staff are far more important than fancy titivations in the dining room. Every customer should feel confident that the food he eats is safe and has been safely prepared. He has a right to be so protected and your Council are the guardians of that right.

As a further help the bye-laws made under Section 15 of the Act govern the handling and wrapping of food, and also the sale of foodstuffs in the open air, but the responsibility for safe food does not rest entirely with the trader as the housewife must play her part as well. Quite a lot of strange things happen to food between the shop counter and the dinner plate, and the educational campaign has had to be carried into the home. Every link in the chain of infection must be remembered ; that chain hangs as a symbol over every water closet in the district. Personal hygiene is the keynote, whether it be fostered by posters and propaganda, or taught to the children in simple nursery jingles. Foodborne diseases,

mild dysenteries and attacks of diarrhoea and vomiting are not infrequent in our homes and among our visitors. I am confident that higher standards will reduce these preventable diseases.

Ice Cream Trade.

Food and Drugs Act, 1938. *Section* 14.

Ice Cream (Heat Treatment, etc.) Regulations, 1947.

The following premises were registered under Section 14 of the Food and Drugs Act, 1938 :—

Manufacture by hot mix, cold mix, storage and sale ...	0
Manufacture by cold mix, storage and sale	2
Storage and sale only	36

A comprehensive code of standards for ice-cream factories, plant and retail units was approved by your Council and circulated to the trade. The open barrow or cart has been abolished, and the enforcement of the Ice Cream (Heat Treatment, etc.) Regulations, 1947, has greatly improved the technique of manufacture.

Prepared Meats.

Food and Drugs Act, 1938. *Section* 14.

The number of premises on the Register under Section 14 of the Food and Drugs Act, 1938, used for the preparation of sausages, potted meat, preserved meat, pressed meat, and pickled foods, was 22. Informal Notices have been issued regarding certain alterations and improvements.

Milk.

I think the day is not far distant when our District will be declared free from bovine tuberculosis and the only milk allowed to be sold will be tuberculin-tested milk from attested herds or heat treated milk. Very rapid progress is being made towards that goal, and we should not be distracted by side issues.

Registration of Milk Distributors and Dairies which are not Dairy Farms.

Milk and Dairies Regulations, 1949.

Total number of Registered Distributors	8
Total number of Registered Dairies	2

Cleanliness of Milk.

Food and Drugs Act, 1938. *Section* 68.

No samples of milk were taken during 1953 for laboratory examination.

Pathogenic Organisms in Milk.

Food and Drugs Act, 1938. *Section* 68.

No samples were examined biologically in guinea pigs for the presence of tuberculosis organisms.

The finding of tubercle bacilli in milk is difficult, and one must bear in mind the human biological tests on your children with their tragic record of new cases and deaths in the past years from non-respiratory tuberculosis. The growth of the Attested Herds Scheme and Tuberculin Tested milk production will gradually reduce this toll of human suffering, but more intensive sampling of ungraded milk will be required.

No instances of other disease-producing organisms in milk were found. We know that Brucella Abortus, the organism which causes contagious abortion in cattle and undulant fever in man, can be isolated from a good proportion of bulked milk supplies, and it is probable that mild infections constantly occur. No serious cases have been encountered and the veterinary profession is taking steps to inoculate cattle against the disease.

It was not necessary to stop any milk supply or restrict the activities of milk-handlers under the Milk and Dairies Regulations on account of infectious disease.

Designated Milks.

Milk (Special Designation) Regulations.

Your District Council is responsible for the granting of Dealers' and supplementary annual licences for the sale of designated milks. One dealer's licence was granted during the year.

Slaughterhouses.

Food and Drugs Act, 1938. *Sections* 57-61.

Since the establishment of the Ministry of Food Abattoir at Kirkby Stephen in January, 1940, the various private slaughterhouses in your District have been used solely for the temporary storage of meat pending distribution to the consumers. All licences have lapsed. There are no knackers' yards.

Meat is now distributed from either the Penrith or the Kirkby Stephen Abattoirs under the centralised slaughtering scheme. The efficiency and convenience of meat inspection has made a dramatic improvement.

Condemnation of Meat.

Food and Drugs Act, 1938. *Sections* 10-12.

The whole of the meat inspection at the Kirkby Stephen Abattoir is carried out by your Sanitary Inspectors, and a 100 per cent. inspection service has been maintained throughout the year.

The figures of 2,544 animals slaughtered and meat condemned during the year are as follows :—

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number killed	215	187	95	1817	230
Number inspected	215	187	95	1817	230
ALL DISEASES EXCEPT TUBERCULOSIS—					
Whole Carcases condemned	6	35	58	37	1
Carcases of which some part or organ was condemned ...	135	125	6	220	32
Percentage of number inspected affected with Disease other than Tuberculosis ...	65·58	85·56	67·36	14·14	14·34
TUBERCULOSIS ONLY—					
Whole Carcases condemned	1	2	—	—	—
Carcases of which some part or organ was condemned ...	3	22	—	—	5
Percentage of the number inspected affected with Tuberculosis	1·86	12·83	—	—	2·17

Condemnation of Other Foods.

The following other foodstuffs were condemned during the year :—

Canned Ham	79 lbs.
Canned Luncheon Meat, etc.	9½ lbs.
Canned Peas and Soups	2 lbs.
Canned Fruits	8 lbs.
Fresh Fruit and Vegetables	240 lbs.
Cheese	40 lbs.
Packeted Pudding Mixtures	28 lbs.

Methods of Disposal of Condemned Food.

The Minister of Health requires me to describe the current methods for the disposal of condemned food. In this District it is by burial.

GENERAL SANITARY INSPECTION.

Your Council employs one Chief Sanitary Inspector and two Additional Sanitary Inspectors. The salary is apportioned between the sanitary inspection duties and other duties in a proportion approved by the Minister of Health. You receive through the County Council a grant of

one-half of that apportionment of the salary allocated to sanitary inspection, and this should therefore be the basis upon which time is devoted to the various duties.

The Chief Sanitary Inspector is located at the Council Offices in Kirkby Stephen, and the senior of the two Additional Sanitary Inspectors is located at Shap. The third Inspector assists where he is required from time to time.

The Chief Sanitary Inspector has the assistance of one female clerk and one male clerk and, in addition to being responsible for the whole Rural District, he has personal charge of the Eastern Division which represents that portion of your District which was East Westmorland before the boundary alteration in 1935.

The Second Sanitary Inspector has an office in Shap and has the assistance of one part-time female clerk. He is responsible to the Chief Sanitary Inspector for carrying out the Council's duties in the Western Division which represents the old Shap Urban District and Shap Rural District and the West Ward.

I recommend once again the centralisation of administration within your Area. The divided control is a bad relic of the fusion of the Districts which took place in 1935 and if the unification is to be made an effective unit of Local Government it must be a union in spirit and body as well as in name. Old rivalries and local prejudices must be sunk in order that efficiency as well as economy may be achieved.

The heavy imposition of the delegated functions under the Town and Country Planning Act, 1947, was increased during 1949. This additional burden together with the duties of water engineering seriously embarrasses my staff. I am keeping this matter under close review as I am not at all satisfied with the position which prejudices sanitary inspection and the health of the staff.

Impending legislation suggests that many extra burdens will be imposed upon the department in the near future, and some extra help may be needed.

Offensive Trades.

Public Health Act, 1936. *Section* 107.

There are no offensive trades in the district.

Factories.

Factories Act, 1937.

There are 65 factories in your District, six are non-mechanical factories and 59 are provided with power.

One out-worker was notified to your Council by factory owners.

There are no recognised basement bake-houses in the District.

One certificate was issued approving the means of escape in case of fire in a factory.

Form 572 (revised) was sent directly to the Minister of Labour and National Service giving the details of the Council's administration of the relevant sections of Parts I and VIII of the Factories Act, 1937, in accordance with Section 127 of that Act.

Inspections.

Premises	Number on Register	Number of		
		Inspections	Written Notices	Occupiers Prosecuted
Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities ...	6	5	—	—
Factories not included in (i) in which Section 7 is enforced by the Local Authority	59	—	—	—
Other Premises in which Section 7 is enforced by the Local Authority (excluding out-workers' premises)	—	—	—	—
TOTAL	65	5	—	—

No defects were found.

Shops Act, 1950.

42 visits were made under the Shops Acts for the supervision of sanitary accommodation, washing facilities, and the maintenance of suitable temperature. These duties are not adequately covered at present due to the prior claims of other work, but it is hoped to increase the supervision. Informal Notices were served whenever any contraventions were observed.

Common Lodging Houses.

Public Health Act, 1936. *Part IX.*

There are no registered common lodging houses in the area.

Rent Restriction Acts.

No certificates under Section 12, Rent and Mortgages Interest Restrictions (Amendment) Act, were issued during the year. No contraventions of Section 4 of the Housing Act, 1936, regarding rent book entries were encountered.

Smoke Abatement.

Public Health Act, 1936. *Sections* 101-106.

No action was required.

Laboratory Service.

Public Health Act, 1936. *Section* 196.

Satisfactory laboratory facilities were available at Kendal and Carlisle for all public health purposes. During 1947 a new scheme was inaugurated by the Public Health Laboratory Service for the performance of all laboratory examinations of a preventive and epidemiological nature, free of charge to the Local Authority and the patient This should do much to encourage the freer use of modern diagnostic methods by general practitioners and your Health Department.

National Assistance Act, 1948.

Section 47.

It was not necessary during the year to deal with any cases requiring removal. Several individuals were visited for consideration.

Bye-laws.

Bye-laws on public health matters are in force with regard to :—

New buildings. Tents, vans and sheds.
Prevention of waste, misuse and contamination of water.
Food handling.

New Legislation.

The Local Government (Miscellaneous Provisions) Act 1953 became operative on 14th August, 1953.

APPENDIX 'A' LABORATORY EXAMINATION OF PUBLIC WATER SUPPLIES

Nature of Test	Standards Max.	Barton	Blea Tarn	Bleawater Raw	Bleawater Treated	Brough
Pr. Coli count 37° ...	3–10	0	5	0	7	9
Faecal Coli/strep ...	0		+		+	+
Character	—	Clear	Clear	Clear	Clear	Clear
Reaction	—	6·8	7·2	7·0	8·2	7·4
Ammonical Nitrogen ...	·041	·003	·003	·002	·01	·004
Albuminoid Nitrogen ...	·066	·020	·022	·002	·079	·019
Dissolved Solids ...	1000	60	120	48	45	214
Hardness — Total ...	300	32	100	17	29	97
Hardness — Carbonate ...		0	72	6	0	60
Hardness — Non-Carbonate		32	28	11	29	37
Chlorides	30	13·0	13·0	7·0	10·0	8·0
Nitrates	1·0	—	—	—	—	—
Nitrites	—	—	—	—	—	—
0·2 Absorbed	1·0	·038	0·46	·052	·06	·174
Heavy Metals	—	Zinc approx. ·4	0	0	Zinc approx. ·5	0
Rainfall 24 hrs. ...	—	Nil	Nil	Nil	Slight	Nil
Date Sampled	—	20/2/53	9/2/53	16/2/53	12/1/53	16/2/53
Laboratory	—	Carlisle	Carlisle	Carlisle	Carlisle	Carlisle

Nature of Test	Dufton	Hilton	Kaber	Kirkby Stephen Raw	Kirkby Stephen Treated	Kirkby Thore ex. Marble Scar
Pr. Coli count 37° ...	0	0	0	0	0	7
Faecal Coli/strep ...						+
Character	Clear	Clear	Clear	Subject to discoloration	Clear	Clear
Reaction	7·8	7·4	7·4	7·6	7·2	7·4
Ammonical Nitrogen ...	·012	·008	·007	·023	·001	·001
Albuminoid Nitrogen ...	·043	·025	·01	·051	·003	·008
Dissolved Solids ...	96	70	234	230	231	242
Hardness — Total ...	69	54	110	162	100	126
Hardness — Carbonate ...	10	25	35	136	68	36
Hardness — Non-Carbonate ...	59	29	75	26	32	90
Chlorides	8·0	9·5	10·0	10	10·0	8·0
Nitrates	—	—	—	·54	—	—
Nitrites	—	—	—	—	—	—
0·2 Absorbed	·16	0·16	·44	·9	·75	·075
Heavy Metals	Zinc trace	0	Zinc trace	—	0	Lead ·2
Rainfall 24 hrs. ...	Nil	Nil	Nil	Slight	Nil	Nil
Date Sampled	29/1/53	29/1/53	20/2/53	9/10/47	16/2/53	2/2/53
Laboratory	Carlisle	Carlsile	Carlisle	Carlisle	Carlisle	Carlisle

Chemical analyses results are expressed in parts per million.

APPENDIX 'A' LABORATORY EXAMINATION OF PUBLIC WATER SUPPLIES—*continued*

Nature of Test	Kirkby Thore ex. Newbiggin	Long Marton	Maller-stang	Murton	Newbiggin-on-Lunr	Ormside
Pr. Coli count 37° ...	0	0	3	0	3	0
Faecal Coli/strep ...			+		+	
Character	Clear	Clear	Clear	Clear	Clear	Clear
Reaction	6·8	7·2	7·2	6·8	7·4	7·5
Ammonical Nitrogen ...	·002	·003	·023	·002	·005	·002
Albuminoid Nitrogen ...	·002	·005	·280	·018	·051	·007
Dissolved Solids ...	146	64	109	30	70	118
Hardness { Total ...	72	46	39	19	29	32
Hardness { Carbonate ...	24	4	5	0	0	18
Hardness { Non-Carbonate	48	42	34	19	29	14
Chlorides	8·0	7·5	9·5	9·0	8·0	10·0
Nitrates	—	—	—	—	—	—
Nitrites	—	—	—	—	—	—
0·2 Absorbed	·02	·06	5·62	·14	0·32	·008
Heavy Metals	—	0	Iron 2·0	0	0	Lead approx. ·1
Rainfall 24 hrs. ...	Nil	Nil	Slight	Nil	Nil	Nil
Date Sampled	6/2/53	6/2/53	26/2/53	29/1/53	21/1/53	9/2/53
Laboratory	Carlisle	Carlisle	Carlisle	Carlisle	Carlisle	Carlisle

Nature of Test	Orton	Shap	Tebay	Warcop	Wickersgill
Pr. Coli count 37° ...	3	13	0	0	0
Faecal Coli/strep ...	+	+			
Character	Clear	Clear	Clear	Clear	Clear
Reaction	7·2	7·6	7·3	6·8	7·0
Ammonical Nitrogen ...	·024	·05	·003	·002	·065
Albuminoid Nitrogen ...	·048	·220	·045	·005	·176
Dissolved Solids ...	106	198	57	178	28
Hardness { Total ...	89	109	34	117	14
Hardness { Carbonate ...	60	80	5	43	0
Hardness { Non-Carbonate	29	29	29	74	14
Chlorides	11·0	12·0	10·5	9·0	8·5
Nitrates	—	—	—	—	—
Nitrites	—	—	—	—	—
0·2 Absorbed	·40	1·6	·08	·016	·8
Heavy Metals	Zinc approx. ·2	Zinc approx. ·2	Zinc approx ·6	0	Zinc approx ·2
Rainfall 24 hrs. ...	Nil	Nil	Nil	Nil	Moderate
Date Sampled	19/1/53	19/10/53	19/1/53	9/2/53	16/11/53
Laboratory	Carlisle	Carlisle	Carlisle	Carlisle	Carlisle

Chemical Analyses results are expressed in parts per million.